

## CLAIMS

We claim:

*Sub A(6)*

1. A data access arrangement for use in a communications device, the data access arrangement circuit comprising:
  - 3 network interface circuitry;
  - 4 a diode bridge having a first pair of terminals for coupling data signals to a network connection and a second pair of terminals coupled to the network interface circuitry;
  - 5 and
  - 6 a high voltage clamping device disposed between the terminals of the second pair of terminals.
- 1 2. The data access arrangement of claim 1, the communications device having a chassis ground, further comprising:
  - 3 a first capacitor coupled between the chassis ground and one of the terminals of the second pair of terminals; and
  - 4 a second capacitor coupled between the chassis ground and the other terminal of the second pair of terminals.
- 1 3. The data access arrangement of claim 2, further comprising:
  - 2 at least one additional high voltage clamping device disposed between the terminals of the first pair of terminals.
- 1 4. The data access arrangement of claim 2, the communications device having a chassis ground, further comprising:

3           a third capacitor coupled between the chassis ground and one of the terminals of the first  
4           pair of terminals; and

5           a fourth capacitor coupled between the chassis ground and the other terminal of the first  
6           pair of terminals.

1       5.     The data access arrangement of claim 1, wherein the network connection is an RJ-11 jack  
2     for coupling to a telephone line.

1       6.     The data access arrangement of claim 1, wherein the high voltage clamping device is a  
2     metal oxide varistor.

1       7.     The data access arrangement of claim 1, wherein the high voltage clamping device is a  
2     SIDACTor™.

1       8.     The data access arrangement of claim 1, the high voltage clamping device having a  
2     maximum specified voltage rating between 410 volts and 455 volts at a maximum specified  
3     current rating between 5 amps and 50 amps.

1       9.     The data access arrangement of claim 1, further comprising:  
2           system side circuitry configurable to communicate with a host system; and  
3           a high voltage isolation barrier having a first side and a second side, the first side coupled  
4           to the network interface circuitry and the second side coupled to the system side  
5           circuitry.

1       10.    The data access arrangement of claim 9, the high voltage isolation barrier comprising a  
2     capacitor.

1 11. The data access arrangement of claim 1 operating in substantial compliance with an  
2 xDSL modem standard.

1 12. The data access arrangement of claim 1 operating in substantial compliance with a home  
2 networking protocol.

1 13. A data access arrangement for use in a communications device having a chassis or earth  
2 ground, the data access arrangement circuit comprising:

3 network interface circuitry;

4 a diode bridge having a first pair of terminals for coupling data signals to a network  
5 connection and a second pair of terminals coupled to the network interface circuitry;

6 and

7 a first high voltage clamping device disposed between the chassis ground and one of the  
8 terminals of the second pair of terminals; and

9 a second high voltage clamping device coupled between the chassis ground and the other  
10 terminal of the second pair of terminals.

1 14. The data access arrangement of claim 13, the communications device, further comprising:

2 a first capacitor coupled between the chassis ground and one of the terminals of the  
3 second pair of terminals; and

4 a second capacitor coupled between the chassis ground and the other terminal of the  
5 second pair of terminals.

1 15. The data access arrangement of claim 14, wherein the high voltage clamping device is a  
2 metal oxide varistor.

1 16. A communications device comprising:  
2 host processing circuitry;  
3 system side circuitry coupled to the host processing circuitry;  
4 network interface circuitry;  
5 a voltage isolation barrier having a first side and a second side, the first side coupled to  
6 the network interface circuitry and the second side coupled to the system side  
7 circuitry;  
8 a diode bridge having a first pair of terminals for coupling data signals to a network  
9 connection and a second pair of terminals coupled to the network interface circuitry;  
10 and  
11 a high voltage clamping device disposed between the terminals of the second pair of  
12 terminals.

1 17. The communications device of claim 16 having a chassis ground, further comprising:  
2 a first capacitor coupled between the chassis ground and one of the terminals of the  
3 second pair of terminals of the diode bridge; and  
4 a second capacitor coupled between the chassis ground and the other terminal of the  
5 second pair of terminals of the diode bridge.

1 18. The communications device of claim 16, wherein the high voltage clamping device is a  
2 metal oxide varistor.

1 19. The communications device of claim 16, wherein the network connection is an RJ-11  
2 jack for coupling to a telephone line.

1    20. The communications device of claim 16, the high voltage isolation barrier comprising a  
2    capacitor.